

In The Claims:

Cancel claims 3-9 and 11; amend claims 1-2 and 10; and add new claims 12-15, as follows:

Claim 1 (currently amended):

1. A connector that includes a frame with a contact-holding passage, a contact lying in said passage, and a wire that has a conductor and a wire insulator lying around the conductor except at a bared conductor end, said contact being formed of a single piece of sheet metal and having a contact termination end that is terminated to the wire, a contact mating end for contacting to a mating contact device, and a contact middle mounted in the frame, ~~wherein~~: said termination end of the contact includes a wide groove part with a wide groove middle that has a wide groove bottom that receives the insulation, said wide groove part including a pair of wide groove part wings projecting from the wide groove part middle and crimped around the wire insulation; said termination end of the contact also includes a narrow groove part having a narrow groove middle that has a narrow groove bottom ~~that is offset from said wide groove bottom~~, said narrow groove bottom receiving the bared conductor, said narrow groove part having a pair of narrow groove part wings projecting from the narrow groove part middle and crimped around the bare conductor; wherein:

said narrow groove bottom is offset a distance (A) from said wide groove bottom, to thereby minimize bending of the bared conductor end.

Claim 2 (currently amended):

2. The connector described in claim 1 wherein said frame has a frame front face and that extends perpendicular to a longitudinal direction (L), said contact-holding passage is elongated in said longitudinal direction, and said contact-holding passage opens to said frame front face, said contact is elongated in said longitudinal direction and said contact mating end forms a resilient end

beam with a beam inner end connected by an inner bend to the rest of the contact, with a beam middle extending from said beam inner end out of said passage ~~at an incline away from said frame face~~, and with a beam free outer portion extending from an outer end of said beam middle that is opposite said beam inner end, wherein:

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said beam middle is straight and extends from said passage beyond said frame front face at an angle (B) of about 20° to said frame front face, and said free beam outer portion extends at an angle (C) of less than 135° to said beam middle, as measured at the inside of said bend and back into said passage.

Claims 3-9 (canceled).

Claim 10 (currently amended):

10. A connector that includes a frame having a through passage and a frame front face that extends perpendicular to a longitudinal direction (L), the connector including a contact lying in the passage, said contact being formed of a piece of sheet metal, said contact having a main contact portion that is elongated in said longitudinal direction and having a mating end portion that comprises a resilient end beam with a beam middle inner end connected by an inner bend to said main contact portion, with a beam middle extending from said beam middle inner end at an incline and forward of said frame face and a beam free outer portion lying forward of said frame face and extending from an outer end of said beam middle that is opposite said beam inner end, wherein:

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said beam middle extends straight and at an angle (B) of about 20° to said frame face and extends beyond said frame front face, and said beam free outer portion extends from an outer end of said beam middle that is opposite said beam middle inner end, in a bend ~~that has a bend angle of less than 135° as measured at the inside of the bend~~ that results in said free outer portion extending from beyond said frame front face back into said frame passage.

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Claim 11 (canceled).

Claim 12 (new):

12. A connector that includes a plurality of frames that each has a contact-holding passage, a contact lying in said passage, and a wire that has a conductor and a wire insulator lying around the conductor except at a bared conductor end, each contact being formed of a single piece of sheet metal and having a contact termination end that is terminated to the wire, a contact mating end for contacting to a mating contact device, and a contact middle mounted in the frame, wherein:

5            said termination end of each contact includes a wide groove part with a wide groove middle that has a wide groove bottom that receives the insulation, said wide groove part including a pair of wide groove part wings projecting from the wide groove part middle and crimped around the wire insulation;

10            said termination end of each contact also includes a narrow groove part having a narrow groove middle that has a narrow groove bottom that is offset from said wide groove bottom, said narrow groove bottom receiving the bared conductor, said narrow groove part having a pair of narrow groove part wings projecting from the narrow groove part middle and crimped around the bare conductor, and including;

15            a housing that has a plurality of tunnels including a small tunnel and a large tunnel, the large tunnel having a larger cross-section than the small tunnel;

20            said plurality of frame devices includes a small frame that fits closely in said small tunnel end a large frame that fits closely in said large tunnel but not said small tunnel, each frame device having a frame front face;

25            each of said frame devices has front and rear ends and a plurality of passages extending between said ends, said passages each having a height that is a plurality of times as great as its width;

said contacts each lies in one of said passages, said multiplicity of contacts includes a plurality of small contacts each lying in one of said small passages and a plurality of large contacts each lying in one of said large passages;

30 each of said contacts has a contact major portion and has a resilient end beam with a beam inner end connected by an inner bend to the contact major portion and each end beam extending from its inner bend and having an outer portion extending at an incline away from the frame face

35 the end beams of said large contacts have a cross-section that is at least 150% as large as the end beams of said small contacts, whereby the large contacts can be power contacts that carry large currents with minimal heating while the small contacts carry low current signals.

Claim 13 (new):

13. The connector described in claim 12 wherein:

5 each of end beams has an outer end that forms a contact location, and said large contacts each has a thickness along its end beam that is at least 150% of the thickness of said small contacts along their end beams, each end beam having a width that is greater than its thickness.

Claim 14 (new):

14. The connector described in claim 13 wherein:

each of said large passages has a greater height than said small passages, and each of said large contacts has an end beam of greater height than the height of the end beams of said small contacts.

Claim 15 (new):

15. A connector that includes a frame having a through passage and a frame front face, the connector including a contact lying in the passage, said contact being formed of a piece of sheet metal, said contact having a main contact

portion and having a mating end portion, and including a wire that has a conductor and an insulator around the conductor except at a bared conductor end, wherein:

5                   said contact has a termination end that lies opposite said mating end, said termination end having a wide groove part with a wide groove middle that has a wide groove bottom that receives the insulation, and said wide groove part including a pair of wide groove part wings projecting from the wide groove part middle and crimped around the wire insulation;

10                  said termination end of the contact includes a narrow groove part having a narrow groove middle that has a narrow groove bottom that is offset from said wide groove bottom, said narrow groove bottom receiving the bared conductor, and said narrow groove part having a pair of narrow groove part wings projecting from the narrow groove part middle and crimped around the bared wire.